

REMARKS

The final office action dated May 30, 2007 (the "Office Action") has been received and noted. Claims 1-7 were examined. Claims 1-7 were rejected. Claim 1 is amended. Support for the amendment can be found in, for example, paragraph [0018] of the Application. As such, no new matter has been added. Claims 1-7 remain in the application. Reconsideration of the pending claims is requested in view of the above-amendments and following remarks.

I. Claims Rejected Under 35 U.S.C. § 103

A. Claims Rejected as Unpatentable over *Gealer* in view of *Zechman*

Claims 1-7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,765,865 to Gealer et al. ("*Gealer*") in view of U.S. Patent No. 3,774,079 to Zechman ("*Zechman*"). Applicant respectfully submits that amended independent claim 1 and its respective dependent claims are not obvious over the cited references.

Amended independent claim 1 includes the limitation of "a working electrode *terminal to couple to a portion of the conductive layer consisting of nickel . . . by an independent clip.*" (App., claim 1.) The significance of clip 226 and its function of clipping to the conductive layer *only* is illustrated in the Application, which states in pertinent part, "[c]lip 226 makes good electrical contact with the conductive layer to be selectively etched off wafer 220." (App, ¶ [0018]).

By contrast, *Gealer* teaches a system to increase the etch rate of a wafer including reaction vessel 13, reference electrode 23 and holder 11 which simultaneously holds wafer/fragment 9 and platinum gauze counter-electrode 10. (*Gealer*, col. 5, lns. 20-43; FIG. 2). Thus, as admitted by the Examiner on page 2 of the Office Action, *Gealer* does not disclose each and every limitation of independent claim 1, namely, the limitation discussed above. *Zechman* does not cure this lack of teaching or suggestion because *Zechman* teaches "a ring type clip or holder 5 spaced from and parallel with the electrode 3." (*Zechman*, col. 3, lns. 54-55.) According to *Zechman*,

[t]he reason for providing a circular or annular clip such as 5 is to provide a large contact surface area between the wafer 4 and the negative battery connection. This will assure the

flow of adequate current through the circuit to complete anodizing of the surface of the wafer 4 to a suitable degree prior to excessive anodization of the contact area between wafer 4 and the clip 5

(*Zechman*, col. 3, lns. 56-63.) Thus, *Zechman* does not teach or suggest all of the limitations of independent claim 1, namely, “a working electrode *terminal to couple to a portion of the conductive layer consisting of nickel . . . by an independent clip.*” (see App., claim 1.) Dependent claims 2-7 depend from independent claim 1 and therefore include all of the limitations thereof. Accordingly, Applicant submits that independent claim 1 and its respective dependent claims are allowable over the cited references.

B. Claims Rejected as Unpatentable by *Gealer* in view of *Shaw*

Claims 1-7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Gealer* in view of U.S. Patent No. 3,560,357 to Shaw (“*Shaw*”). Applicant respectfully submits that amended independent claim 1 and its respective dependent claims are not obvious over the cited references. *Gealer* does not teach or suggest all of the limitations of independent claim 1 for the reasons stated in section I(A) of this Response. *Shaw* does not cure this lack of teaching or suggestion because *Shaw* teaches “spring clip 19 [which] has an uncoated tapered portion 20 which extends through a small hole in the photoresist layer 14 *to contact the underlying portion of the film 19.*” (*Shaw*, col. 3, lns. 57-30.) That is, spring clip 19 is in contact with tungsten film 13, which is described by Shaw as an “inactive metal[.]” (*Shaw*, col. 3, ln. 14; FIG. 2.) Thus, *Shaw* does not teach or suggest all of the limitations of independent claim 1, namely, “a working electrode *terminal to couple to a portion of the conductive layer consisting of nickel . . . by an independent clip.*” (see App., claim 1.) Dependent claims 2-7 depend from independent claim 1 and therefore include all of the limitations thereof. Accordingly, Applicant submits that independent claim 1 and its respective dependent claims are allowable over the cited references.

C. Claims Rejected as Unpatentable by *Gealer* in view of *Van Dijk*

Claims 1-7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Gealer* in view of U.S. Patent No. 3,616,345 to Van Dijk (“*Van Dijk*”). Applicant respectfully submits that amended independent claim 1 and its respective dependent claims are not obvious over the cited references. *Gealer* does not teach or suggest all of the limitations of independent claim 1 for the

reasons stated in section I(A) of this Response. *Van Dijk* does not cure this lack of teaching or suggestion because *Van Dijk* teaches that “[b]y means of a clip 30 . . . platinum connection 31 is clamped against the side 3 at a place 32 which is located near the edge of the disklike body.” (*Van Dijk*, col. 4, lns. 24-27.) That is, clip 30 is not even connected with the silicon body itself on one side, but instead has a platinum connection 31 situated therebetween. (*Van Dijk*, FIG. 4.) Thus, *Van Dijk* does not teach or suggest all of the limitations of independent claim 1, namely, “a working electrode **terminal to couple to a portion of the conductive layer consisting of nickel . . . by an independent clip.**” (see App., claim 1.) Dependent claims 2-7 depend from independent claim 1 and therefore include all of the limitations thereof. Accordingly, Applicant submits that independent claim 1 and its respective dependent claims are allowable over the cited references.

D. Claims Rejected as Unpatentable by *Nojiri* in view of *Zechman*

Claims 1-7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,173,149 to *Nojiri et al.* (“*Nojiri*”) in view of *Zechman*. Applicant respectfully submits that amended independent claim 1 and its respective dependent claims are not obvious over the cited references.

Amended independent claim 1 includes the limitation of “a working electrode **terminal to couple to a portion of the conductive layer consisting of nickel . . . by an independent clip.**” (App., claim 1.) The significance of clip 226 and its function of clipping to the conductive layer **only** is illustrated in the Application, which states in pertinent part, “[c]lip 226 makes good electrical contact with the conductive layer to be selectively etched off wafer 220.” (App, ¶ [0018]).

By contrast, *Nojiri* teaches an electrolytic etching apparatus including electrolytic bath 1, reference electrode 22, opposing electrode 4 and a lead connected to metallic film 31 of substrate 3. (*Nojiri*, col. 6, lns. 14-51; FIG. 5). According to *Nojiri*, the portion of substrate 3 to be etched is p-type substrate 3a, which **is not** in direct connection with the lead connecting to substrate 3 (again, the lead is connected to metallic film 31). (*Nojiri*, FIG. 5). Thus, as admitted by the Examiner on page 6 of the Office Action, *Nojiri* does not disclose each and every limitation of independent claim 1, namely, the limitation discussed above. *Zechman* does not cure this lack of teaching or suggestion for the reasons outlined in section (I)(A) of this Response. Dependent

claims 2-7 depend from independent claim 1 and therefore include all of the limitations thereof. Accordingly, Applicant submits that independent claim 1 and its respective dependent claims are allowable over the cited references.

E. Claims Rejected as Unpatentable by *Nojiri* in view of *Shaw*

Claims 1-7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Nojiri* in view of *Shaw*. *Nojiri* does not teach or suggest all of the limitations of independent claim 1 for the reasons stated in section I(D) of this Response. *Shaw* does not cure this lack of teaching or suggestion for the reasons outlined in section (I)(B) of this Response. Dependent claims 2-7 depend from independent claim 1 and therefore include all of the limitations thereof. Accordingly, Applicant submits that independent claim 1 and its respective dependent claims are allowable over the cited references.

F. Claims Rejected as Unpatentable by *Nojiri* in view of *Van Dijk*

Claims 1-7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Nojiri* in view of *Van Dijk*. *Nojiri* does not teach or suggest all of the limitations of independent claim 1 for the reasons stated in section I(D) of this Response. *Van Dijk* does not cure this lack of teaching or suggestion for the reasons outlined in section (I)(C) of this Response. Dependent claims 2-7 depend from independent claim 1 and therefore include all of the limitations thereof. Accordingly, Applicant submits that independent claim 1 and its respective dependent claims are allowable over the cited references.

CONCLUSION

In view of the foregoing, it is believed that all claims now pending, namely claims 1-7 and are in condition for allowance and such action is earnestly solicited at the earliest possible date. If the Examiner believes that a telephone conference would be useful in moving the application forward to allowance, the Examiner is encouraged to contact the undersigned at (310) 500-4787.

Respectfully submitted,

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CERTIFICATE OF TRANSMISSION

I hereby certify that this correspondence is being submitted electronically via EFS Web to the United States Patent and Trademark Office on July 23, 2007.



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